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**AMENDMENTS TO THE CLAIMS**

The listing below of the claims will replace all prior versions and listings of claims in the present application:

**Listing of Claims:**

Claim 1 (currently amended): A method of producing a heating element containing essentially molybdenum silicide and alloys thereof, which forms aluminum oxide on its surface, said method comprising the steps of: producing a material that contains substantially  $\text{Mo}(\text{Si}_{1-x}\text{Al}_x)_2$  and  $\text{Al}_2\text{O}_3$  by mixing a mixture of a silicon and a molybdenum compound with an aluminum compound, wherein the silicon and molybdenum compound mixture includes  $\text{Mo}(\text{Si}_{1-y}\text{Al}_y)_2$  and is mixed with an aluminum compound including at least one of  $\text{Al}_2\text{O}_3$  or  $\text{Al(OH)}_3$ , wherein the mixture of a silicon and a molybdenum compound with an aluminum compound includes components that together have a degree of purity corresponding to at least 98%; and reacting the mixture components by at least one of exothermic reaction and sintering so that exchange reactions take place to form the compounds  $\text{Mo}(\text{Si}_{1-x}\text{Al}_x)_2$  and  $\text{Al}_2\text{O}_3$ , where x lies in the range of 0.4 - 0.6.

Claim 2 (previously presented): A method according to Claim 1, wherein  $\text{SiO}_2$  is included in the mixture is a silicate and does not affect symmetry of molybdenum silicide crystal lattice.

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Claim 3 (previously presented): A method according to Claim 1, wherein x lies in the range of 0.45 - 0.55.

Claim 4 (previously presented): A method according to Claim 1, including the step of adding at least one of sintering auxiliaries MgO, CaO, SiO<sub>2</sub> and Y<sub>2</sub>O<sub>3</sub> to said mixture.

Claim 5 (previously presented): A method according to Claim 1, including the step of partially substituting for molybdenum at least one of Re or W or Nb in the material Mo(Si<sub>1-x</sub> Al<sub>x</sub>)<sub>2</sub>.

Claim 6 (previously presented): A method according to Claim 5, including the step of replacing molybdenum with W in an amount corresponding to approximately one third.

Claim 7 (currently amended): A method according to claim 1, wherein the heating element input mixture components together have a degree of purity of at least 99% .

Claim 8 (previously presented): A method according to claim 1, including the step of adding to the mixture at least one of the compounds SiO<sub>2</sub>, Si, and MoO<sub>3</sub>.

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**Claim 9 (previously presented): A method according to claim 1, wherein the mixture of the silicon and the molybdenum compound contains MoO<sub>3</sub> and Al, and at least one of Si and SiO<sub>2</sub>.**

**Claim 10 (previously presented): A method according to claim 2, wherein the silicate is mullite.**

**Claim 11 (previously presented): A method according to claim 2, wherein the silicate is sillimanite.**

**Claim 12 (new): A method according to claim 1, wherein the heating element includes a surface layer of aluminum oxide that is retained after cyclic operation of the heating element between room temperature and 1500°C.**